

Science

Humans Year 2 (Animals including Humans)

Remember when

Vertebrates are animals that have a backbone. (Y1)
Animals give birth to live young or lay eggs. (Y1)

Sticky knowledge

All humans and animals need to feed, drink and breathe in order to survive.

Good hygiene is important to prevent infections and illness.

To stay healthy and grow into a healthy adult, you need to eat nutritious foods, exercise, brush your teeth and get enough sleep.

A balanced diet is made up of five food groups, including: fruit and vegetables, carbohydrates, proteins, dairy and fats.

We should eat more fruit and vegetables (5 a day)

What humans can do/ will be able to do at each life stage e.g. baby- nappies/crawling, toddler- walking, child- starting school, teenager- high school, adult- having children.



Key vocabulary

carbohydrates
dairy
diet
exercise
fruits
fats
healthy
hygiene
life cycle
medicine
nutrition
offspring
proteins
survive
survival
vegetables

National Curriculum

- Notice that animals, including humans, have offspring which grow into adults
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Common Misconceptions

Some children may think:

- respiration is breathing.
- breathing is respiration.
- a life cycle is perfectly circular (old people have babies, not younger adults)

LO and enquiry type	Knowledge and Skills	Lesson outline
<p>Lesson 1</p> <p>LO: To understand the life cycle of a human.</p> <p>Enquiry type: Research</p>	<p>SK: What humans can do/ will be able to do at each life stage e.g. baby- nappies/crawling, toddler- walking, child- starting school, teenager- high school, adult- having children.</p> <p>Skill: gathering and recording data to help in answering questions.</p>	<p>Discuss the difference between needs (survival) and wants.</p> <p>Warm up activity – sort images of survival needs and things that are ‘wants’ in small groups. As a class discuss how they sorted them and highlight the key needs for survival (water, air, food).</p> <p>Introduction to life cycles. Explore and sequence a human life cycle. Bring in baby photographs (if possible). What are the different needs for babies/children/adults? How is each stage different? What are babies/toddlers/children/adults/elderly able to do/not do? Discuss why some people need medicine in order to live healthily. Discuss the order of the life cycle. Is it a complete circle – why? (Old people tend not to be the ones to have babies)</p> <p>LA – sort images of human life cycle and labels into the correct order</p> <p>ARE – sort images of human life cycle into the correct order and label each stage</p> <p>GD – sort images of human life cycle into the correct order, label each stage and state something humans can do at that stage in their life that they couldn’t do before.</p>

<p>Lesson 2</p> <p>LO: To know that children usually get bigger as they get older.</p> <p>Enquiry type: Pattern seeking.</p>	<p>SK: All humans and animals need to feed, drink and breathe in order to survive.</p> <p>To stay healthy and grow into a healthy adult, you need to eat nutritious foods, exercise, brush your teeth and get enough sleep.</p> <p>Skill: observing closely, using simple equipment.</p>	<p>Recap how humans grow. Line up children from different year groups in height order. Are the oldest children the tallest?</p> <p>CC maths – measuring head circumference of children in different year groups. What happens next? Do people continue to grow all their lives? Compare to staff. Discuss anomalies: why does this happen?</p> <p>Collect data and present in a table.</p> <p>SEN: Measure with paper to show the visual results. Adult led activity. Take a photo for books.</p> <p>ARE: Use paper strips to get the circumference and then measure with a ruler to the nearest cm (adult support where necessary).</p> <p>GD: Measure with fabric tape measures.</p> <p>After collecting results, teacher to create a bar chart to show children the patterns.</p>
<p>Lesson 3</p> <p>LO: To know why humans need exercise.</p> <p>Enquiry type: Observation over time</p>	<p>SK: We should eat a balanced diet with a range of different foods.</p> <p>Skill: asking simple questions and recognising that they can be answered in different ways</p>	<p>Children to take part in various exercises to investigate the effects of exercise on their body.</p> <p>Superhero Training School (p.25) - Pupil's aim to be as fit and healthy as they can by the end of the week. Pupils to record data.</p> <p>LA – state whether their heartbeat is slow, quick or very quick after each exercise. Group discussion on why exercise is important for humans.</p> <p>GD – clearly explain why exercise is important and the effects it has on the body.</p>
<p>Lesson 4</p> <p>LO: To know why we need a balanced diet.</p> <p>Enquiry type: Classifying, grouping and Identifying</p>	<p>SK: To stay healthy and grow into a healthy adult, you need to eat nutritious foods, exercise, brush your teeth and get enough sleep.</p> <p>A balanced diet is made up of five food groups, including: fruit and vegetables, carbohydrates, proteins, dairy and fats.</p> <p>We should eat more fruit and vegetables (5 a day)</p> <p>Skill: identifying and classifying.</p>	<p>Discuss the food groups and sort different foods into the correct groups.</p> <p>Shared activity - You are what you eat: Children mind map different foods around a healthy and an unhealthy person.</p> <p>Discuss the need for a balanced diet – it is okay to have small amounts of fat/sugar but this should not be the main source of food in anyone's diet.</p> <p>Sort foods under Eat Well plate headings (use meat/fish/eggs instead of protein and bread/pasta instead of carbohydrates).</p> <p>LA: given fewer foods to sort with some foods already placed on the EatWell plate to help them to match similar foods.</p> <p>GD: Explain why we should not have too much fat and sugar in our diets.</p>
<p>Lesson 5</p> <p>LO: To know why hygiene is important.</p> <p>Enquiry type: Research</p>	<p>SK: To stay healthy and grow into a healthy adult, you need to eat nutritious foods, exercise, brush your teeth and get enough sleep.</p> <p>Good hygiene is important to prevent infections and illness.</p> <p>Skills: performing simple tests.</p>	<p>Discuss different ways of maintaining hygiene, choose different methods and write about why this is important (washing, cleaning fingernails, washing hair).</p> <p>LA - Create a poster to draw different hygiene methods.</p> <p>GD – Explain the effects of not following different hygiene routines.</p> <p>Germs: Use sanitizing gel and glitter to indicate germs on hands. The child should then touch the hands of others, and different surfaces, to show how easily germs can spread. Child to try rinsing their hands with water, and then washing properly with soap, to show how important proper handwashing is.</p> <p>Story: Whiffy Wilson, the Wolf who Wouldn't Wash by Caryl Hart</p>
<p>Lesson 6</p> <p>LO: To know why we need to look after our teeth.</p> <p>Enquiry type: Research</p>	<p>SK: To stay healthy and grow into a healthy adult, you need to eat nutritious foods, exercise, brush your teeth and get enough sleep.</p>	<p>Discuss dental hygiene and rules for healthy teeth – brush twice a day for 2 minutes. Use toothbrush and toothpaste in circular motions. When you are older, you can use mouthwash and dental floss also. Possible visit from a dental nurse/hygienist. Use 2-minute timer to show how long children should brush teeth for. Possibly use disclosing tablets (need permission from parents).</p>

	<p>Good hygiene is important to prevent infections and illness.</p> <p>Skill: asking simple questions and recognising that they can be answered in different ways</p>	<p>LA/ARE - Ordering instructions on how to brush teeth.</p> <p>GDS - Ordering instructions on how to brush teeth. Explain what could happen if teeth are not brushed correctly.</p>	
Working towards	<p>End of unit assessment</p> <p>Working at Age related expectations</p>		Working at a greater depth